

NORTH REGION OFFICE OF SURVEYS

QUALITY MANAGEMENT PLAN

FOR RIGHT OF WAY ENGINEERING

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NORTH REGION OFFICE OF SURVEYS: RIGHT OF WAY ENGINEERING (RWE) QUALITY MANAGEMENT PLAN

NORTH REGION OFFICE OF SURVEYS (NROS)/RIGHT OF WAY ENGINEERING is a product and customer satisfaction driven division. In its efforts to attain a high level of quality assurance it finds its quality control elements bound to the integrity of its employees, who initiate and maintain the quality of the product, the **RIGHT OF WAY MANUAL (CHAPTER 6)**¹, the laws embodied in the **CALIFORNIA LAND SURVEYORS ACT, SUBDIVISION MAP ACT, STREETS AND HIGHWAY CODE STATUTES**, and its internal processes built with redundancies and checklists from field surveys through office processing.

GENERAL GUIDELINES FOR QUALITY CONTROL AND QUALITY ASSURANCE (QC/QA)

In broad scope, the NROS-RWE QC/QA program aims to ensure the following:

- That each task complies with the laws and regulations that govern the use of Federal, State, and local transportation funds;
- That each product meets the customer's needs and purposes, as defined in the **Task Order** and **Cost Estimate**;
- That a process for constructive feedback is implemented and contributes to satisfactory product delivery;
- And, that immunities established by law to protect the Department and its employees from liability are preserved.

These guidelines apply to all **Right of Way Engineering Tasks** including participation in the preparation of the Project Initiation Document (PID); and interactions with the other Caltrans Departments throughout the project, as right of way determinations, right of way surveys for delineation and monumentation, acquisitions and relinquishments, and deed and map preparation play a part through and after Construction.

As with any general guidelines, which must apply to a wide range of activities, NROS-RWE staff members are expected to use professional judgment in their application.

¹ The **RIGHT OF WAY MANUAL** can be found at:
<http://www.dot.ca.gov/hq/row/rowman/manual>. Chapter 6 is dedicated to Right of Way Engineering. Its index is appended to this document. It is continually updated as processes and technology change.

In its conception, **QC/QA** is not intended to be an additional layer of effort required to deliver a successful project. It is, simply or not, intended to be the norm that governs all activities, projects, and processes within **NROS**.

The more specific steps towards Quality Assurance, through Quality Control, are described, listed and appended below.

IMPLEMENTING QUALITY ASSURANCE

The policies and processes of **NROS-Right of Way Engineering** are developed and continually refined to ensure high quality in its project deliverables through a series of **Quality Control** measures. These policies and processes are applied throughout the product delivery process from project initiation to post-construction. These measures include, but are not limited to, the following:

- A well trained and experienced work force, which is dedicated to producing a high quality product;
- The RIGHT OF WAY MANUAL, Chapter 6, which specifies the procedures, documents, and attendant items for defining, locating, and mapping property, acquisitions and relinquishments, the SURVEYS MANUAL, which defines the technical aspects of surveying for land-net and right of way, and the aforementioned legal principles that govern surveys and mapping (also noted in Chapter 6).
- The RWE "Quality Assurance Check List" with its well defined quality control checkpoints²;
- Feedback from the customers, including the other CALTRANS divisions and the public;
- The daily interaction of the staff, to inform, critique and improve current practices.

The more specific steps to Quality Assurance through Quality Control are contained in NROS-RWE and Departmental checklists and flowcharts, of which the pertinent ones are described and appended below.

APPENDED CHECKLISTS AND ASSOCIATED DOCUMENTS

The following documents are appended:

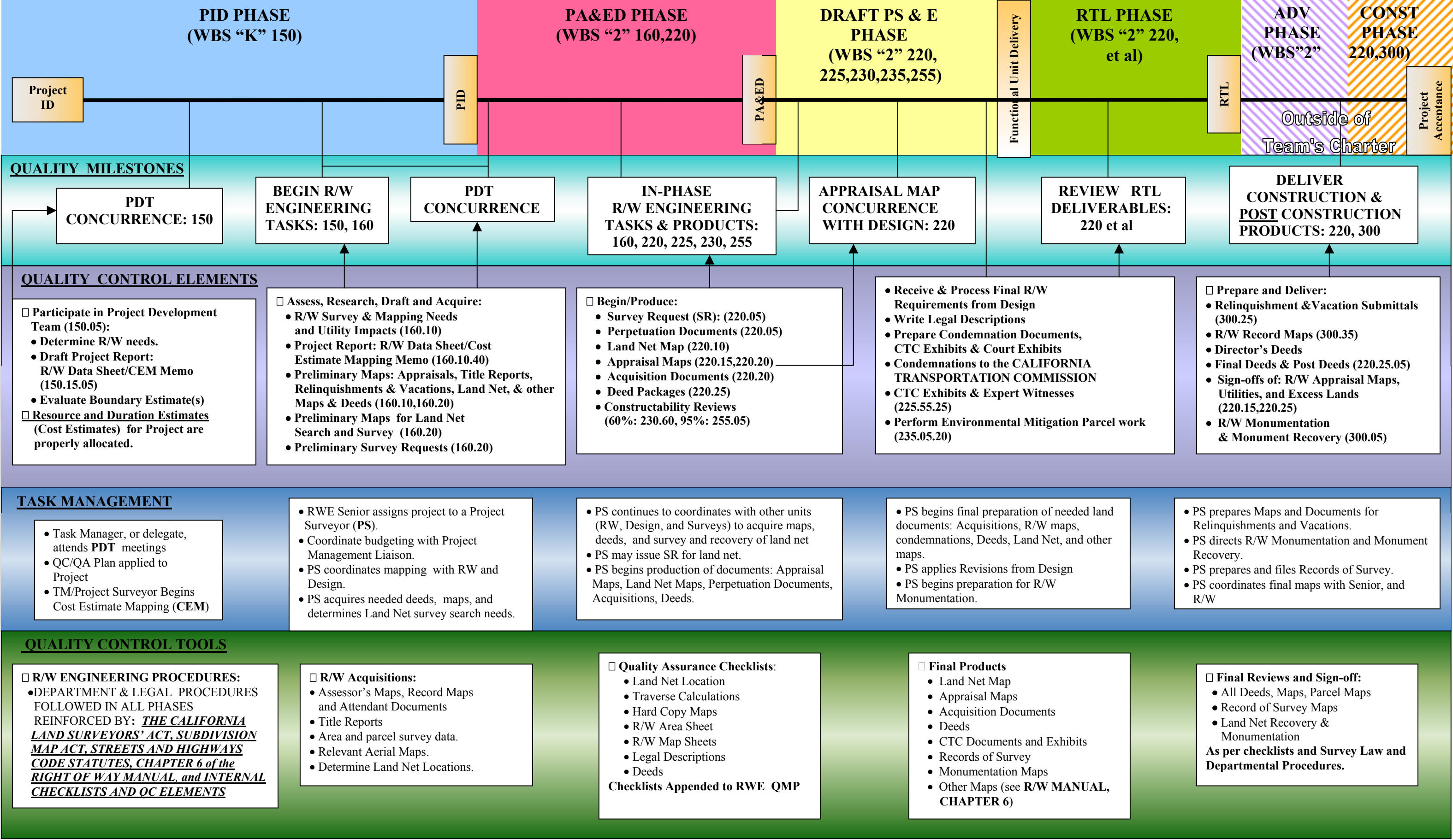
1. "QC/QA DESIGN BASED FLOWCHART FOR RIGHT OF WAY ENGINEERING", which is the base flowchart document for the QMP
2. "QC-QA FLOWCHART OUTLINE", which is an outline of the materials within the QC/QA Flowchart ("1" above).

² The checkpoints are defined by the checklists and job flow charts appended to this document.

3. "The Right of Way Engineering Quality Assurance Check List", which is a thorough, item by item, check and review list for all RWE products (maps, deeds, easements, et al);
4. "Approval Sheet(s)", which are signing off documents (i.e. review and approval of documents) for R/W Appraisal Maps to be approved by: Project Development, R/W Utilities, and R/W Excess Lands;
5. "Processes and Related Right of Way Engineering Products", which is an ordered list of Process/Products/Notes (WBS codes) that are the products of RWE;
6. "Right of Way Engineering Table of Contents" from Chapter 6, RIGHT OF WAY MANUAL (<http://www.dot.ca.gov/hq/row/rowman/manual>), which lists and defines the products and steps that lead to the final products of RWE;
7. "Right of Way Engineering Project Related Activities", which is an alternative flowchart from RWE.
8. "Combined RWE & Surveys Project Work Flow Diagram", which is a complex flow chart diagramming the interactions of Surveys and R/W Engineering from project inception to completion (post construction and monument and control maintenance activities).

NORTH REGION QUALITY MANAGEMENT PLAN

R/W ENGINEERING PROJECT SPECIFIC QUALITY CONTROL PLAN



RIGHT OF WAY ENGINEERING PROJECT FLOW CHART OUTLINE¹

1. Project Initiation:
 - A. Obtain information from the status book, design, maintenance, or construction. Review any project reports.
 - B. Create Hardship and Protection Parcel Maps as/if required.
 - C. Create Estimate Maps as/if required.
2. Create a Project File and Locate, Add, and File the following:
 - A. Obtain Assessor's Maps, and Record Maps (Record of Surveys, Parcel Maps, Tract Maps, etc.).
 - B. List the Assessor's Parcel Numbers that are affected.
 - C. Obtain copies of property ownership lists from the Assessor's Files.
 - D. Check the map files for any previous jobs in the Project Area that may apply to or impact the current Project.
3. Maps:
 - A. Obtain aerial photos and topographic maps.
 - B. Create an Assessor's composite map.
 - C. Visit the Project Site to compare maps to reality.
4. Issue a Survey Request (SR):
 - A. Prepare the maps necessary for the surveyor's use.
 - B. Prepare/calculate search coordinates for property and R/W corners.
 - C. Denote/list the property corners that need to be searched for and tied.
 - D. Visit Project Site to recover needed corners.
 - E. Meet with the surveyors to discuss the survey with regard to monumentation maps, recovered/recovery of points, and survey methodology.
5. Process returned Survey Data:
 - A. Using the data, delineate the property, and compute areas affected.
6. Prepare the Base Maps:
 - A. Assign parcel numbers and order the needed Title Reports.
 - B. Create parcel inventory sheets (IRWS).
7. Obtain/receive Right of Way requirements from Design:
 - A. Review Design right of way requirements for completeness.
 - B. Meet with designers to resolve any conflicts.
 - C. Overlay the R/W requirements on the Base Maps and compute the areas needed (for takings, et al).

¹ Adapted from a District 02 document.

8. Appraisal Maps:
 - A. Prepare and send out Appraisal Maps.
 - B. Prepare/fill out Certificates of Sufficiency for Hazard Materials.
 - C. Send copies of the Appraisal Maps to Design for their review and approval.
 - D. Revise Appraisal Maps, if needed.
9. Final Deeds:
 - A. Write and Post Final Deeds with revisions if necessary.
10. Perform Condemnation Procedures.
11. Post Record Maps and associated documents for Public Display.

Processes and Related Right of Way Engineering Products

| Process | Products | Notes |
|--|---|---|
| Project Initiation Document (R/W Data Sheet) | Cost Estimate Mapping | WBS 150.15.05, CEM Memo |
| | | |
| Draft Project Report (R/W Data Sheet) | Cost Estimate Mapping | WBS 160.10.40, CEM Memo |
| | | <i>Above should both be tied in with resource and scheduling (duration) estimates for RWE</i> |
| | | |
| Draft Project Report | Preliminary Land Net Map (Includes research, survey request, field work, and boundary determination) | WBS 160.20.25, 160.20.30, 160.20.35 |
| | | |
| Perform Right of Way Engineering | Survey Request (Includes research, corner records*,etc.) | WBS 220.05.05, 220.05.10 |
| | | |
| Perform Right of Way Engineering | Perpetuation Documents* (Includes field work and mapping) | WBS 220.05.10, 220.05.20, 220.05.25 <i>* May be done by others</i> |
| | | |
| Perform Right of Way Engineering | Land Net Map | WBS 220.10 |
| | | |
| Perform Right of Way Engineering | Appraisal Maps, etc. | WBS 220.20.05, 220.20.15, 220.15.30, 220.15.35, 220.15.95 |
| | | <i>Recognized need to work closely with Mapping Standards Team</i> |
| | | |
| Perform Right of Way Engineering | Acquisition Documents | WBS 220.20.05, 220.20.15 |
| | | |
| Perform Right of Way Engineering | Deed packages for Contract Obligations | WBS 220.25.05, 220.25.15, 220.25.95 |
| | | |
| Perform Right of Way Engineering | Revisions | WBS 220.30.05, 220.30.10 |

Processes and Related Right of Way Engineering Products

| Process | Products | Notes |
|---|---|--|
| Project R/W Certification | CTC Exhibits, Expert Witness | WBS 225.55.25, 245.55.25 (closeout cond.) |
| | | |
| Tort Litigation | Expert Witness, Court Exhibits | Owner/Operator EA (researching) |
| | | |
| PS&E Review | Review/Comment, Constructability Reviews | WBS 230.60 (60%), 255.05 (review/95%) |
| | | |
| Perform Environmental Mitigation R/W Work | Appraisal Maps & Deeds for Mitigation Parcel(s) not covered under WBS 220/225 | WBS 235.05.20 (QC/QA – same as 220) |
| | | |
| Prepare Staking Notes | R/W Data (summaries, etc.) for inclusion in Survey File | WBS 255.35 |
| | | <i>Need to develop QC checklist in conjunction w/ Construction Surveys Group</i> |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

QUALITY ASSURANCE REVIEW

PROJECT: _____

CONTRACT NO: _____

TASK: _____

SEGMENT: _____

JOB NO: _____

DATE: _____

ENTERED AND COMPUTED BY: _____

COMPILED BY: _____

CHECKED BY: _____

REVIEWED BY: _____

QUALITY ASSURANCE CHECK LIST

LAND NET LOCATION

Project – Caltrans Right-of-Way Engineering

| <u>ITEM</u> | <u>CALC'D</u> | <u>CHK'D</u> | <u>REVIEWED</u> |
|---------------------------------------|---------------|--------------|-----------------|
| Survey Plan | _____ | _____ | _____ |
| Record Maps | _____ | _____ | _____ |
| Existing Control | _____ | _____ | _____ |
| <u>Field Notes</u> | | | |
| Cover Sheet | _____ | _____ | _____ |
| Title | _____ | _____ | _____ |
| Job No. | _____ | _____ | _____ |
| Equipment | _____ | _____ | _____ |
| Crew | _____ | _____ | _____ |
| <u>Computation Sheets</u> | | | |
| Horizontal Datum | _____ | _____ | _____ |
| Controls Points Used | _____ | _____ | _____ |
| Software | | | |
| Program _____ | _____ | _____ | _____ |
| Program _____ | _____ | _____ | _____ |
| Program _____ | _____ | _____ | _____ |
| Data File _____ | _____ | _____ | _____ |
| Results File _____ | _____ | _____ | _____ |
| Path _____ | _____ | _____ | _____ |
| Disc/Tape Format _____ | _____ | _____ | _____ |
| Compare Closures with Allowable _____ | _____ | _____ | _____ |
| <u>Survey Report</u> | | | |
| Survey Purpose | _____ | _____ | _____ |
| Datum | _____ | _____ | _____ |
| Methods | _____ | _____ | _____ |
| Results | _____ | _____ | _____ |
| <u>Contract Deliverables</u> | | | |
| Survey Report | _____ | _____ | _____ |
| Calcs | _____ | _____ | _____ |
| Field Notes | _____ | _____ | _____ |
| Basis of Survey | _____ | _____ | _____ |
| Presentation of Materials | _____ | _____ | _____ |

QUALITY ASSURANCE CHECK LIST

TRAVERSE CALCULATIONS

Project - Caltrans Right-of-Way Engineering

| <u>ITEM</u> | <u>CALC'D</u> | <u>CHK'D</u> | <u>REVIEWED</u> |
|--|---------------|--------------|-----------------|
| <u>Control and Right-of-Way</u> | | | |
| Enter Control Data | _____ | _____ | _____ |
| Enter New R/W Data | _____ | _____ | _____ |
| Enter Old R/W Data | _____ | _____ | _____ |
| <u>Field Survey</u> | | | |
| Enter Field Data | _____ | _____ | _____ |
| Reduce to Grid | _____ | _____ | _____ |
| Compare with Field Data and Adjust, if necessary | _____ | _____ | _____ |
| <u>Record Data Traverse</u> | | | |
| Enter Record Data | _____ | _____ | _____ |
| Reduce to Grid | _____ | _____ | _____ |
| Compare with Field Data and Adjust, if necessary | _____ | _____ | _____ |
| <u>Parcel Break-Out Traverses</u> | | | |
| Block/Deed Chain Adjustment and Proportion | _____ | _____ | _____ |
| Ownership Break-Out | _____ | _____ | _____ |
| Parcel Take Area | _____ | _____ | _____ |
| Remainder Area | _____ | _____ | _____ |
| Easement Take Area, if necessary | _____ | _____ | _____ |
| <u>Contract Deliverables</u> | | | |
| Computer Printout Reflecting, Parcel Number, Point Numbers, Bearings, Distances Curve Data, Coordinates, Closure and Areas | _____ | _____ | _____ |
| Disc of Same, if necessary | | | |

* Note: Normally traverse calculations will accompany the various maps, sketches and legal descriptions for parcels and will appear on an intergraph disc for that map, sketch or legal description.

QUALITY ASSURANCE CHECK LIST
HARD COPY MAPS
Project - Caltrans Right-of-Way Engineering

| <u>ITEM</u> | <u>DRAWN</u> | <u>CHK'D</u> | <u>REVIEWED</u> |
|---|--------------|--------------|-----------------|
| <u>Map Requirements</u> | | | |
| Sheet Size (Varies) | _____ | _____ | _____ |
| Title Block | _____ | _____ | _____ |
| Point Listing | _____ | _____ | _____ |
| <u>Location Data</u> | | | |
| Rancho, Meridian, Township Range, Section, subdivision, forest boundaries, property lines, and Base and Meridian if applicable. | | | |
| Section lines, corners, labeled. | _____ | _____ | _____ |
| Subdivision with recordations data, lot, block, parcel. | _____ | _____ | _____ |
| Street names, survey line, and widths (if uniform). | _____ | _____ | _____ |
| Railroad names, rights-of-eay, withs and recordation data. | _____ | _____ | _____ |
| Waterways names, rivers, creeks, washes, lakes etc. widths and reference data. | _____ | _____ | _____ |
| Centerline Data | | | |
| Stationing, point numbers, curve data, bearings and distances. | _____ | _____ | _____ |
| <u>Land Net and Parcel Data</u> | | | |
| Transfer traverse calculations data file, from each finished parcel. | _____ | _____ | _____ |
| Easements to be acquired: numbered, dimensioned and labeled as to purpose. | _____ | _____ | _____ |
| Existing easements involved in the project are to be shown and labeled. | _____ | _____ | _____ |
| Parcels, numbers and ownership names. | _____ | _____ | _____ |
| Areas: total holding, R/W requirements, remainder and excess. | _____ | _____ | _____ |
| Analysis | _____ | _____ | _____ |
| Decision | _____ | _____ | _____ |

HARD COPY MAPS (Continued)

ITEM

| | | | |
|--------------------------------------|-------|-------|-------|
| Hard Copy Number | _____ | _____ | _____ |
| NAD__ __ Coordinates | _____ | _____ | _____ |
| Zone 5 | _____ | _____ | _____ |
| Grid Factor | _____ | _____ | _____ |
| 0: " ' ' at Pt. | _____ | _____ | _____ |
| No. Near | _____ | _____ | _____ |
| _____ & _____ | _____ | _____ | _____ |
| ● = Found Point | _____ | _____ | _____ |
| ○ = Calc Point | _____ | _____ | _____ |
| ___ = Calc line | _____ | _____ | _____ |
| = Grapic line | _____ | _____ | _____ |
| Tract Boundary | _____ | _____ | _____ |
| North Arrow | _____ | _____ | _____ |

Point Listing Area

| | | | |
|------------------|-------|-------|-------|
| Point Number | _____ | _____ | _____ |
| Northing Easting | _____ | _____ | _____ |
| Description | _____ | _____ | _____ |
| Level | _____ | _____ | _____ |

Point Listing Improvements

| | | | |
|---------------------|-------|-------|-------|
| Closure | _____ | _____ | _____ |
| Point Number | _____ | _____ | _____ |
| Curve Data, Bearing | _____ | _____ | _____ |
| Distance | _____ | _____ | _____ |
| Norhting, Easting | _____ | _____ | _____ |
| Description | _____ | _____ | _____ |

* A total take completely within the R/W may be described by its record demensions and the area corrccted if necessary by further calculation.

QUALITY ASSURANCE CHECK LIST
R/W AREA SHEET
Project - Caltrans Right-of-Way Engineering

| ITEM | <u>DRAWN</u> | <u>CHK'D</u> | <u>REVIEWED</u> |
|---|--------------|--------------|-----------------|
| <u>Map Requirements</u> | | | |
| Sheet Size (22' x 36") | _____ | _____ | _____ |
| Margins (RWM50 Format) | _____ | _____ | _____ |
| Title Block | _____ | _____ | _____ |
| Signatory Block | _____ | _____ | _____ |
| Revision Block | _____ | _____ | _____ |
| Quality Check Block | _____ | _____ | _____ |
| Norht Arrow | _____ | _____ | _____ |
| <u>Location Data</u> | | | |
| Streets, Name R/W | _____ | _____ | _____ |
| Railroads, Name, Run | _____ | _____ | _____ |
| Freeway, Name/No., R/W | _____ | _____ | _____ |
| Parcels | _____ | _____ | _____ |
| R/W Map Sheet Layout (dashed), and No.'s | _____ | _____ | _____ |
| <u>Parcel Identification</u> | | | |
| Parcel No. and Owner Per Sheet | _____ | _____ | _____ |
| <u>Title Block</u> | | | |
| Title: Area Map | _____ | _____ | _____ |
| Bar Scale | _____ | _____ | _____ |
| Map File Number | _____ | _____ | _____ |
| Source, Charge, E.A. | _____ | _____ | _____ |
| <u>Revision Blocks</u> | | | |
| Date, revision and descriton of change | _____ | _____ | _____ |
| Revision by, checked by, date. | _____ | _____ | _____ |
| <u>References</u> | | | |
| To other highway routes and map numbers of intersecting projects. | _____ | _____ | _____ |

R/W AREA SHEET (Continued)

ITEM

Signatory Blocks

Dist, County, route, post mile,
sheet no., total sheets.
Signature
Date
Seal

| | | |
|-------|-------|-------|
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |

Quality Control Block

Detailed
Checked
Traced
Checked
Hard Copy No.

| | | |
|-------|-------|-------|
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |

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QUALITY ASSURANCE CHECK LIST
R/W MAP SHEETS
Project - Caltrans Right-of-Way Engineering

| <u>ITEM</u> | <u>DRAWN</u> | <u>CHK'D</u> | <u>REVIEWED</u> |
|---|--------------|--------------|-----------------|
| <u>Map Requirements</u> | | | |
| Sheet Size (22"x36") | _____ | _____ | _____ |
| Margins (RWM50 Format) | _____ | _____ | _____ |
| Title Block | _____ | _____ | _____ |
| Signatory Block | _____ | _____ | _____ |
| Revision Block | _____ | _____ | _____ |
| Quality Control Block | _____ | _____ | _____ |
| <u>Location Data</u> | | | |
| Rancho, Meridian, Township Range, Section | | | |
| Subdivision, forest, boundaries, property | | | |
| lines, and Base and Meridian if applicable. | | | |
| Section lines, corners, labeled. | _____ | _____ | _____ |
| Name of city, town: subdivision with recordation | | | |
| data, lot, block: city limit lines. | _____ | _____ | _____ |
| Street names, centerlines, R/W lines and widths | | | |
| (if uniform) | _____ | _____ | _____ |
| Waterways: rivers, creeks lakes, etc. | _____ | _____ | _____ |
| Railroad, name, rights-of-way and widths. | _____ | _____ | _____ |
| Existing landmarks (by name), parks, | | | |
| schools, airports | _____ | _____ | _____ |
| <u>Centerline Data</u> | | | |
| Stationing, curve data, bearings and | | | |
| distances, Post mile on centerline. | _____ | _____ | _____ |
| <u>Land Net and Parcel Data</u> | | | |
| Transfer traverse calculations data | | | |
| file, from each finished parcel. | _____ | _____ | _____ |
| Easements to be acquired: numbered, | | | |
| dimensioned and labeled as to purpose | _____ | _____ | _____ |
| Existing easements involved in the project | | | |
| are to be shown and labeled. | _____ | _____ | _____ |
| <u>Access Information</u> | | | |
| Current requirements, identified by access | | | |
| denial ticks. | _____ | _____ | _____ |
| Access rights previously acquired - labeled. | _____ | _____ | _____ |
| Frontage roads. | _____ | _____ | _____ |
| Grade separation labeled. | _____ | _____ | _____ |
| Access openings: symbol, size ties to centerline. | _____ | _____ | _____ |

MAP SHEETS (Continued)

ITEM

DRAWN

CHK'D

REVIEWED

Use of Details

Use when needed to clarify dimensioning
Place close to parcel, or add note "See
Detail 'A' ", etc.
If not drawn to scale must be so labeled
Repeat at least one parcel number and one
dimension for reference.
If necessary to rotate detail, use additional
norht arrow.

| | | |
|-------|-------|-------|
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |

Ownership Record

Prcel Numbers
Grantors name tabulated in block.
Areas Required: Remainder, total and excess.
Recordation: Instr, date, O.R.
Remarks: Easements to be acquired, area
and purpose.

| | | |
|-------|-------|-------|
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |

Map Background

Grid ticks on field of drawing.
Topography.
Contours if needed.
Basis of Bearing (when CCS used, included
grid factors and zone)
Norht arrow

| | | |
|-------|-------|-------|
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |

Title Block

Title: R/W Map
Coordiante basis and combination factor.
Bar scale.
Map fiel number.
Source, charge, E.A.

| | | |
|-------|-------|-------|
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |

Revision Block

Date, revision and description of changes.
Revision by, checked by, date.

| | | |
|-------|-------|-------|
| _____ | _____ | _____ |
| _____ | _____ | _____ |

References

To adjoining right-of-way maps if needed
for clarity.
To other highway routes and map numbers
of intersecting projects.

| | | |
|-------|-------|-------|
| _____ | _____ | _____ |
| _____ | _____ | _____ |

R/W MAP SHEET (Continued)

| <u>ITEM</u> | <u>DRAWN</u> | <u>CHK'D</u> | <u>REVIEWED</u> |
|--|--------------|--------------|-----------------|
| <u>Signatory Block</u> | | | |
| Dist., county, route, post mile, sheet no., total sheets. | _____ | _____ | _____ |
| Signature | _____ | _____ | _____ |
| Date Seal | _____ | _____ | _____ |
| <u>Quality Control Block</u> | | | |
| Detailed | _____ | _____ | _____ |
| Checked | _____ | _____ | _____ |
| Traced | _____ | _____ | _____ |
| Checked | _____ | _____ | _____ |
| Hard Copy No. | _____ | _____ | _____ |

QUALITY ASSURANCE CHECK LIST LEGAL DESCRIPTIONS

Project – Caltrans Right-of -Way Engineering

| <u>ITEM</u> | <u>PRP'D</u> | <u>CHK'D</u> | <u>REVIEWED</u> |
|---|--------------|--------------|-----------------|
| <u>Title</u> | | | |
| Type or Name of Legal | _____ | _____ | _____ |
| Parcel Number | _____ | _____ | _____ |
| <u>Preamble</u> | | | |
| State | _____ | _____ | _____ |
| City, County of Unincorporated Territory | _____ | _____ | _____ |
| Of County | _____ | _____ | _____ |
| Portion, all or of | _____ | _____ | _____ |
| Subdivision, Plat, Document, Township | _____ | _____ | _____ |
| Plat, Land Grant or Survey | _____ | _____ | _____ |
| Name or Number | _____ | _____ | _____ |
| Recording Date and Data | _____ | _____ | _____ |
| <u>Body</u> | | | |
| Point of Commencement | | | |
| Where Located | | | |
| Reference, Date, and Recording Data | _____ | _____ | _____ |
| True Point of Beginning | | | |
| Correct Direction and Distances from | | | |
| Point of Commencement | | | |
| To/Along, Reference, Date, and | _____ | _____ | _____ |
| Record Data to T.P.O.B. | _____ | _____ | _____ |
| Call for Monuments | | | |
| Found or Set | _____ | _____ | _____ |
| Natural | _____ | _____ | _____ |
| Reference, Date and Recording Data | _____ | _____ | _____ |
| Not Called for | _____ | _____ | _____ |
| Tangent Direction | | | |
| To/Along Reference, Date and Recording Data | _____ | _____ | _____ |
| Bearings (Direction, Degrees, Minutes | | | |
| and Seconds) | _____ | _____ | _____ |
| Distances (Feet and Decimals) and 'Feet" | _____ | _____ | _____ |
| Offset To/Parallel To | _____ | _____ | _____ |
| Curve Direction | | | |
| Tangent/Non – Tangent | _____ | _____ | _____ |
| Direction or Concavity | _____ | _____ | _____ |
| Radius (Feet and Decimals) and "Feet" | _____ | _____ | _____ |
| Direction Along Curve | _____ | _____ | _____ |

LEGAL DESCRIPTIONS (Continued)

| <u>ITEM</u> | <u>PRP'D</u> | <u>CHK'D</u> | <u>REVIEWED</u> |
|---|--------------|--------------|-----------------|
| <u>Clauses</u> | | | |
| The sidelines of the here in above Describe strip of land shall be prolonged, Shortened and intersect, where necessary, to Create a continuous boundary and to terminate at a _____ line. | _____ | _____ | _____ |
| All as more particularly shown on Exhibit " _____ ", attached hereto and by this reference made a part hereof. | _____ | _____ | _____ |
| This legal was prepared by me, or under my Direction, in conformance with the Professional Land Surveyors Act. | | | |
| All bearings and distances shown hereon are based on the State of California, Zone 5, State Plane Coordinate System NAD83, Caltrans Adjustment. A combination factor of _____ Was used to convert All ground distances directly to grid, as Shown hereon. | _____ | _____ | _____ |
| <u>Intent</u> | | | |
| Meet Owner Criteria | _____ | _____ | _____ |
| Meet Agency Standards | _____ | _____ | _____ |
| <u>Final</u> | | | |
| Signatory | _____ | _____ | _____ |
| Date | _____ | _____ | _____ |
| Expiration Date | _____ | _____ | _____ |
| Seal | _____ | _____ | _____ |
| Signature | _____ | _____ | _____ |
| <u>Contract Deliverables</u> | | | |
| Legal Description | _____ | _____ | _____ |
| Sketch | _____ | _____ | _____ |
| Disc | _____ | _____ | _____ |

LEGAL DESCRIPTIONS (Continued)

| <u>ITEM</u> | <u>CALC'D</u> | <u>CHK'D</u> | <u>REVIEWED</u> |
|--|---------------|--------------|-----------------|
| Delta (Degree, Minutes, Seconds) | _____ | _____ | _____ |
| Length (Feet and Decimals) and "Feet" | _____ | _____ | _____ |
| Radial Bearing if Non-Tangent (Direction, Degrees, Minutes and Seconds) | _____ | _____ | _____ |
| To/Along Reference, Date and Recording Data | _____ | _____ | _____ |
| <u>Ending</u> | | | |
| Back to True Point of Beginning | _____ | _____ | _____ |
| To a Point on a Line | _____ | _____ | _____ |
| Reference, Date and Recording Data | _____ | _____ | _____ |
| "Of" Descriptions | | | |
| Define Direction | _____ | _____ | _____ |
| Offset Amount | _____ | _____ | _____ |
| Portion Of | _____ | _____ | _____ |
| Reference, Date and Recording | _____ | _____ | _____ |
| "Strip" Descriptions | | | |
| Offset, Each Side of the Following Described Centerline | _____ | _____ | _____ |
| Define True Point of Beginning And Terminus | _____ | _____ | _____ |
| Reference, Date and Recording Data | _____ | _____ | _____ |
| Cross Reference and Check | | | |
| Check Legal Against Record Maps and Documents | _____ | _____ | _____ |
| Check Legal Against Traverse | _____ | _____ | _____ |
| Closures and Sketch | _____ | _____ | _____ |
| Punctuation | | | |
| All Capital Letters | _____ | _____ | _____ |
| Check for Periods, Commas, Colons Semi-Colons and Dashes | _____ | _____ | _____ |
| <u>Area (If Required)</u> | | | |
| Acres | _____ | _____ | _____ |
| Squares Feet | _____ | _____ | _____ |
| <u>Exceptions</u> | | | |
| Reference Name, Date and Recording Data | _____ | _____ | _____ |
| Buildings that Presently Exist | _____ | _____ | _____ |

QUALITY ASSURANCE CHECK LIST
DEEDS
Project - Caltrans Right-of-Way Engineering

ITEM

Deed Forms (Use Correct Form)

Form No.

| | | | | |
|----------|--|-------|-------|-------|
| RW 02-01 | Grant Deed - Individual | _____ | _____ | _____ |
| RW 02-02 | Grant Deed - Individual - With Waiver | _____ | _____ | _____ |
| RW 02-03 | Grant Deed - Corporation - With Waiver | _____ | _____ | _____ |
| RW 02-04 | Grand Deed - Corporation | _____ | _____ | _____ |
| RW 02-05 | Highway Easement Deed - Individual | _____ | _____ | _____ |
| RW 02-06 | Highway Easement Deed - Corporation | _____ | _____ | _____ |
| RW 02-07 | Quitclaim Deed - Individual - With Waiver | _____ | _____ | _____ |
| RW 02-08 | Quitclaim Deed - Corporation - With Waiver | _____ | _____ | _____ |
| RW 02-09 | Quitclaim Deed - Corporation | _____ | _____ | _____ |
| RW 02-10 | Partial Realease of Mortgage (Fee) | _____ | _____ | _____ |
| RW 02-11 | Partial Realease of Mortgage (Easement) | _____ | _____ | _____ |
| RW 02-12 | Request for Partial Reconveyance | _____ | _____ | _____ |
| RW 02-13 | Waiver | _____ | _____ | _____ |
| RW 02-14 | Quitclaim Deed - Individual | _____ | _____ | _____ |
| RW 02-15 | Easement Deed - Individual | _____ | _____ | _____ |
| RW 02-16 | Easement Deed - Corporation | _____ | _____ | _____ |
| RW 02-17 | Partial Reconveyance Under Trust Deed | _____ | _____ | _____ |
| RW 02-18 | Partial Release of Mortgage (Corporation) | _____ | _____ | _____ |
| RW 02-19 | Director's Deed | _____ | _____ | _____ |
| RW 02-20 | Director's Deed (Quitclaim) | _____ | _____ | _____ |
| RW 02-21 | Director's Deed - Land Acquisiton Through Inadvertence or Mistake in Description in Deed | _____ | _____ | _____ |
| RW 02-22 | Director's Deed - Access Rights Opening | _____ | _____ | _____ |
| RW 02-23 | Director's Deed - Access Rights Acquired by Inadvertence or Mistake | _____ | _____ | _____ |

DEEDS (Continued)

ITEM

| | <u>DRAWN</u> | <u>CHK'D</u> | <u>REVIEWED</u> |
|--|--------------|--------------|-----------------|
| <u>Recording Requested By</u> | | | |
| Name | | | |
| <u>Mail To</u> | | | |
| Name | | | |
| Address | | | |
| <u>Dist. CO. RTE</u> | | | |
| District | | | |
| County | | | |
| Route | | | |
| Post Mile | | | |
| Parcel Number | | | |
| <u>Names</u> | | | |
| Grantor | | | |
| Grantee | | | |
| Purpose (Easements) | | | |
| City | | | |
| County | | | |
| <u>Legal Description</u> | | | |
| Preamble | | | |
| Body (Cross Check With Approved Parcel Legal) | | | |
| Suveyor's Clauses (If Necessary) | | | |
| <u>Clausee</u> | | | |
| DF, DFA, DFO (Axquire Abutter's Access Rights) | | | |
| DM Series (General Waiver Clauses) | | | |
| CF, CFO, CFNC (Extinguish Abutter's Access Rights by Condemnation) | | | |
| <u>Rough Draft (Checks)</u> | | | |
| E.A NO. | | | |
| Interstate, Yes No | | | |
| Map No. | | | |
| R.W. P.E. | | | |
| Written by | | | |
| Checked by | | | |

To: North Region, Office of Surveyors – Marysville
Right of Way Engineering Branch
ATTN: [Robert Plumb](#)

APPROVAL SHEET

03-~~XXX-###~~ KP ~~##.#-##.#~~
03-310-#####

DRAWING Nos. R-#####R## THROUGH R-#####R## (## SHEETS)
Dated [00/00/00](#)

1. *Signatures below certify Project Development has reviewed R/W Appraisal Map work prints. Appropriate action indicated by check mark.*

PROJECT ENGINEER'S APPROVAL

- ☐ **Approved** - Proceed to Final R/W Appraisal Map stage.
☐ **Not Approved** - State reasons in next section
☐ **Revise as indicated** - Attach one set of R/W Appraisal prints showing revisions
(Additional comments may be included in next section)

Project Engineer's Signature

Project Engineer's Name (Please Print)

BRANCH CHIEF'S APPROVAL

Senior Transportation Engineer's Signature

Senior Transportation Engineer's Name (Please Print)

2. *Describe below any corrections or changes required, or reason(s) for non-approval.*

cc: Project Manager: [Dewey Cheetem](#)
R/W Team Leader: [Anne Howe](#)

To: North Region, Office of Surveyors – Marysville
Right of Way Engineering Branch
ATTN: [K. C. Cogoman](#)

APPROVAL SHEET

03-~~XXX~~-## KP ##.#-##.#
03-310-#####

DRAWING Nos. R-#####R## THROUGH R-#####R## (## SHEETS)
Dated [00/00/00](#)

1. *Sign below and check appropriate line to indicate Right of Way Utilities approval of R/W Appraisal Map work prints.*

R/W UTILITY COORDINATOR'S APPROVAL

- ☐ **Approved** - Proceed to Final R/W Appraisal Map stage.
☐ **See Comments** (insert comments in next section)

Utility Coordinator's Signature

Utility Coordinator's Name (Please Print)

R/W TEAM LEADER'S APPROVAL

Senior R/W Agent's Signature

Senior R/W Agent's Name (Please Print)

2. *Indicate below any corrections or changes required – attach appropriate sheets as necessary.*

cc: Project Manager: [Dewey Cheetem](#)
Project Engineer: [I. Dunno](#)

To: North Region, Office of Surveyors – Marysville
Right of Way Engineering Branch
ATTN: [Corin R. Searcher](#)

APPROVAL SHEET

03-~~XXX~~-## KP ##.#-##.#
03-310-#####

DRAWING Nos. R-#####R## THROUGH R-#####R## (## SHEETS)
Dated [00/00/00](#)

Sign below and check appropriate line to indicate Right of Way Excess Lands approval of R/W Appraisal Map work prints.

R/W EXCESS LANDS COORDINATOR'S APPROVAL

- ☐ **Approved** - Proceed to Final R/W Appraisal Map stage.
☐ **See Comments** (insert comments in next section)

Excess Lands Coordinator's Signature

Excess Lands Coordinator's Name (Please Print)

R/W TEAM LEADER'S APPROVAL

Senior R/W Agent's Signature

Senior R/W Agent's Name (Please Print)

Indicate below any corrections or changes required – attach appropriate sheets as necessary.

cc: Project Manager: [Kanway Bildit](#)
Project Engineer: [Nidsum Halp](#)

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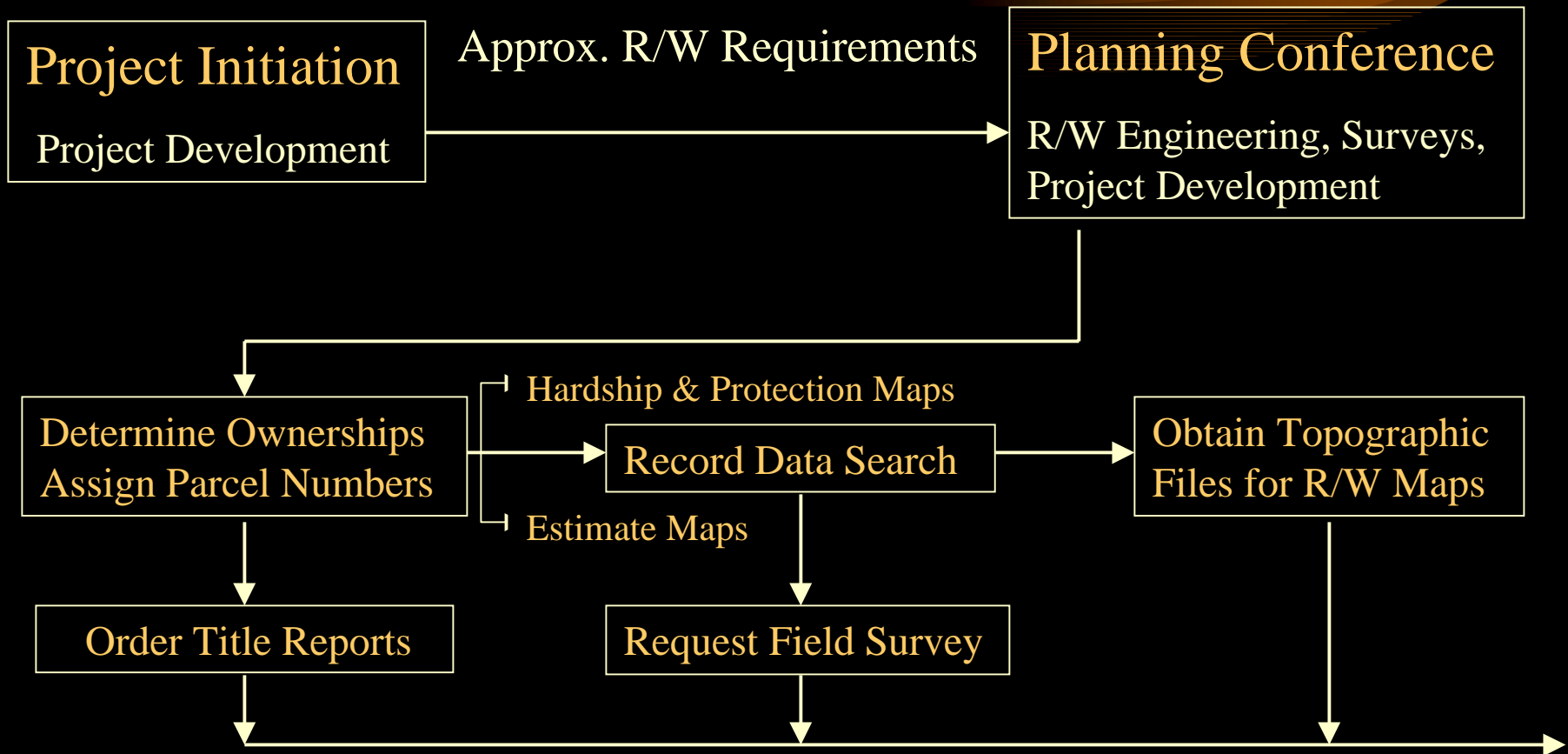
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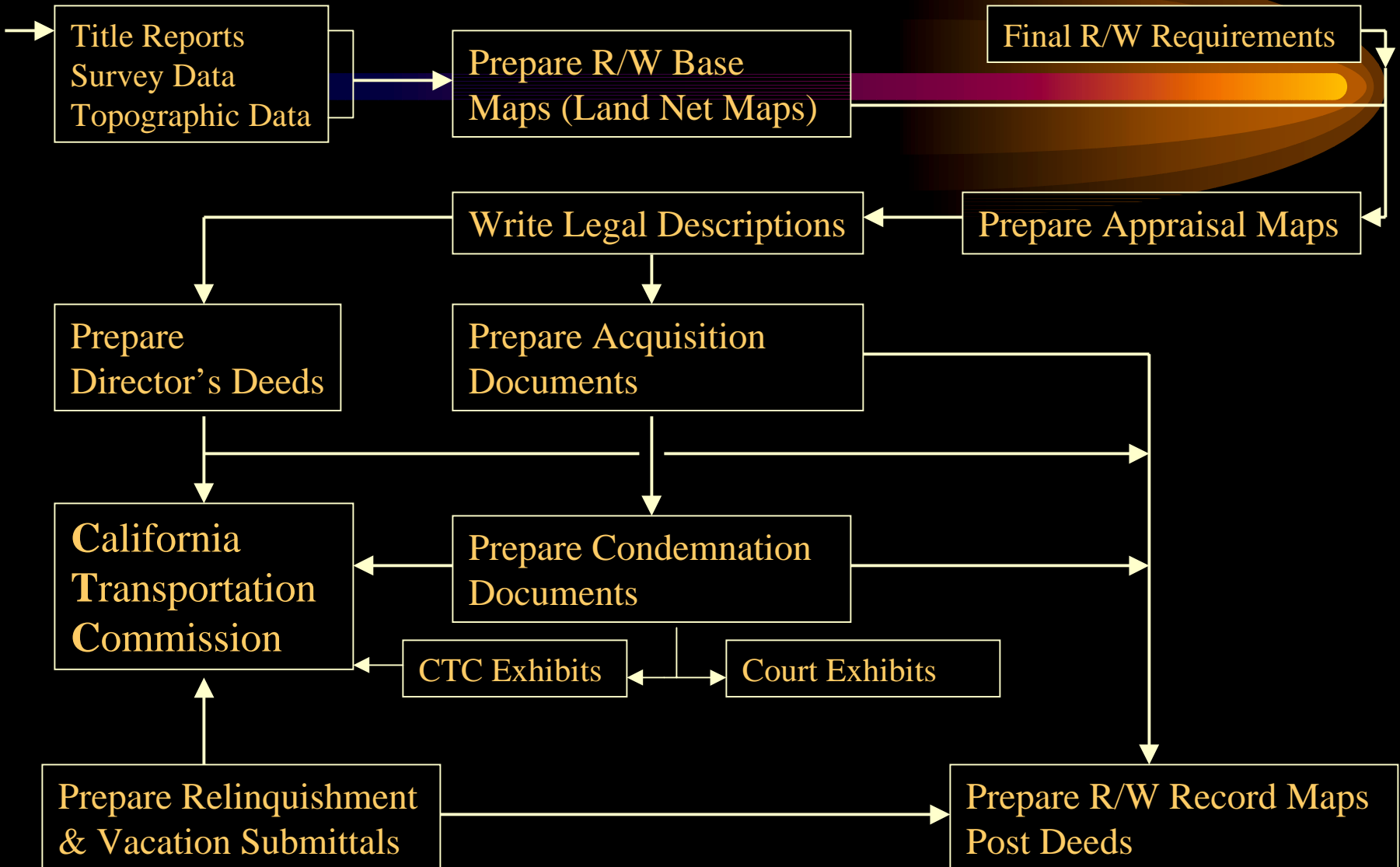
Right of Way Engineering

Project Related Activities



Right of Way Engineering

Project Related Activities (cont.)



COMBINED SURVEYS AND R/W ENGINEERING PROJECT WORK FLOW DIAGRAM

Updated 3/00

